

Listing of the Claims:

Claim 1 (currently amended): An electrochemical gas sensor comprising:

a working electrode comprising a gas porous membrane and a catalyst layer formed on one side of the membrane;

a counter electrode ~~comprising~~ that includes a catalyst;

electrolyte in contact with the catalyst both of the working electrode and of the counter electrode; and

a support which is one of rigid or semi-rigid ~~support that, the support~~ is in contact with, and presses ~~down on, the~~ against a side of the working electrode remote from the electrolyte ~~and that to~~ compresses the electrodes and the electrolyte together, ~~such~~ the support having a thickness of not greater than 0.5mm and wherein the support ~~includes~~ defines a plurality of open areas allowing gas to contact the membrane, the surface area of that portion of the support between the open areas being less than 40% of the combined surface area of the open areas and that portion of the supports support between them.

Claim 2 (currently amended): A sensor as claimed in claim 1, wherein that portion of the support, between the open areas, is in the form of ~~solid regions, e.g. narrow bars~~ elongated members, having a width ~~of not greater~~ less than 0.5mm, ~~more preferably less than 0.3mm, e.g. less than 0.2mm.~~

Claim 3 (new): A sensor as in claim 2 where the elongated members have a width less than one of .3mm or .2mm.

Claim ~~[[3]]~~ 4 (currently amended): An electrochemical gas sensor comprising:

a working electrode comprising a gas porous membrane and a catalyst layer formed on one side of the membrane;

A counter electrode that includes ~~comprising~~ a catalyst;

electrolyte in contact with the catalyst both of the working electrode and of the counter electrode; and

a ~~rigid or semi-rigid~~ support that is in contact with, and presses ~~down on, the~~ against a side of the working electrode ~~remote~~ displaced from the electrolyte ~~and that to~~ compresses the electrodes and the electrolyte together~~[[,]]~~, such support comprising a plurality of open areas that ~~[[allow]] enable~~ gas to contact the membrane, ~~[[and]]the support including~~ solid regions ~~located~~ that extend between the open areas for contacting and supporting the membrane, such solid regions having a width ~~of not greater than 0.5mm, more preferably~~ on the order of one of less than 0.3mm, ~~[[e.g.]] or less than 0.2mm~~, and wherein the aggregate surface area of the solid regions is less than 40% of the combined surface area of the support, including the open areas.

Claim 4 (cancelled).

Claim 5 (currently amended): ~~[[An]] A electrochemical gas sensor as claimed in any preceding claim 4 wherein the support has a thickness of not greater than 0.5mm, preferably less than 0.4mm, more preferably less than 0.3mm, e.g. less than 0.2mm .5 mm.~~

Claim 6 (new): A sensor as in claim 5 where the thickness is less than one of .4 mm, .3 mm or .2 mm.

Claim ~~[[6]]~~ 7 (currently amended): ~~[[An]] A electrochemical gas sensor as claimed in any preceding claim[[,]] 4 wherein the regions of the support between the open areas are in the form of [[bars]] elongated linear members.~~

Claim ~~[[7]]~~ 8 (currently amended): A sensor as ~~claimed in any preceding claim[[,]] 4~~ wherein the surface area of the support between the open areas is less than one of 30%, ~~e.g. less than 20% [[and]] or most preferably less than 10%~~ of the surface area of the support.

Claim ~~[[8]]~~ 9 (currently amended): A sensor as ~~claimed in any preceding claim[[,]] 4~~ which includes a reference electrode.

Claim ~~[[9]]~~ 10 (currently amended): A sensor as ~~elaimed~~ in ~~any preceeding~~ claim ~~[[,]]~~ 4 wherein the support is metallic.

Claim ~~[[10]]~~ 11 (currently amended): A sensor as ~~elaimed~~ in ~~any preceeding~~ claim~~[[,]]~~ 4 wherein the open areas of the support are formed into one of a pattern, ~~most preferably a~~ rectangular or a hexagonal pattern.

Claim ~~[[11]]~~ 12 (currently amended): A sensor as ~~elaimed~~ in ~~any preceeding~~ claim~~[[,]]~~ 4 which includes a housing, and wherein the support includes a rim ~~that comprises material~~ that is fused or welded to the housing.

Claim 13 (new): An electrochemical gas sensor comprising:
a housing that defines an internal region;
first and second electrodes carried by the housing in the region;
an electrolyte between the electrodes;
a retaining mesh that is attached to the housing, covering a predetermined area of one of the electrodes and which presses the one electrode and the electrolyte toward the other electrode, an open portion of the mesh exceeds 60% of the area covered by the mesh.

Claim 14 (new): A sensor as in claim 13 wherein the mesh is formed of elongated linear members having a width less than .5mm.

Claim 15 (new): A sensor as in claim 13 wherein the mesh has a thickness less than .5 mm.

Claim 16 (new): A sensor as in claim 13 where the open portion of the mesh comprises a plurality of one of rectangular or hexagonal patterns.

Claim 17 (new): A sensor as in claim 13 where the open portion of the mesh exceeds 70% of the area.

Claim 18 (new): A sensor as in claim 17 where the electrodes are metallic and the mesh is flexible.

Claim 19 (new): A sensor as in claim 19 where the mesh has a thickness on the order of .1mm and where the open portion of the mesh exceeds 90% of the area.